Claims:

1. A plasma equipment seasoning method comprising the steps of:

measuring the ratio of optical emission intensity of silicon oxide (SiO_X)-based chemical species to optical emission intensity of carbon fluoride compound (CF_Y)- based chemical species present in a process chamber of plasma equipment before operating the plasma equipment to perform a plasma process;

determining whether the value of the measured optical emission intensity ratio is within a predetermined range of normal state or not; and

when reaction gas to be used in the plasma process is supplied into the process chamber based on the result of determination such that the value of the measured optical emission intensity ratio is within the predetermined range of normal state, seasoning the interior of the process chamber to change the ratio of components of the reaction gas, and thus, to change the optical emission intensity ratio.

2. The method as set forth in claim 1, wherein the optical emission intensity ratio measuring step comprises:

supplying the reaction gas to be used in the plasma process into the process chamber, changing the reaction gas into a plasma state, and performing spectroscopic analysis through optical emission measurement.

3. The method as set forth in claim 1, wherein the seasoning step comprises:

if the value of the measured optical emission intensity ratio is above the upper limit value of the predetermined range of normal state,

performing first seasoning to supply first reaction gas having relatively increased percentage of a component that increases the optical emission intensity of the carbon fluoride compound (CF_Y)-based chemical species, among components of the reaction gas, into the process chamber; and

if the value of the measured optical emission intensity ratio is below the lower limit value of the predetermined range of normal state,

performing second seasoning to supply second reaction gas having

relatively increased percentage of a component that increases the optical emission intensity of the silicon oxide (SiO_X)-based chemical species, among components of the reaction gas, into the process chamber.

4. The method as set forth in claim 3, wherein

the reaction gas to be used in the plasma process includes carbon tetrafluoride (CF_4) and oxygen gas (O_2),

the component that increases the optical emission intensity of the carbon fluoride compound (CF_Y)-based chemical species at the first seasoning step is the carbon tetrafluoride (CF_4), and

the component that increases the optical emission intensity of the silicon oxide (SiO_X)-based chemical species at the second seasoning step is the oxygen gas (O_2).

5. Plasma equipment comprising:

a process chamber having an inner space defined therein for performing a plasma process;

a plasma generating coil disposed on the process chamber for generating plasma;

an optical emission spectroscopic analysis unit mounted to the wall of the process chamber for spectroscopically analyzing chemical species present in the process chamber;

an optical emission intensity ratio value calculation unit for calculating the ratio of optical emission intensity of silicon oxide (SiO_X)-based chemical species to optical emission intensity of carbon fluoride compound (CF_Y)- based chemical species from the results collected and spectroscopically analyzed by the optical emission spectroscopic analysis unit and comparing the value of the calculated optical emission intensity ratio with a predetermined range of normal state to determine whether seasoning is necessary and what kind of seasoning is appropriate if the seasoning is necessary; and

a main control unit for controlling supply of reaction gas introduced into the process chamber to perform the seasoning based on the determination of the optical emission intensity ratio value calculation unit.